

Notice of Allowability**Application No.**

09/544,142

Examiner

Joseph D. Anthony

Applicant(s)

TSILEVICH, MAOZ BETZER

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 11/06/03.
2. ☒ The allowed claim(s) is/are 13-15, 17-25 [renumbered as 1-3, 10-12, 4-9].
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☒ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. _____. |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

Joseph D. Anthony
Primary Examiner
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jerald L. Meyer on 11/24/03.

The application has been amended as follows:

Claim 13 (amended) A method for preparing an endothermic heat shield composition, which comprises at least 50 wt/wt% hydrated salt and at least one filler material, said method comprising:

- a) heating the hydrated salt to a temperature at which it liquefies:
- b) adding and mixing at least one filler material into a); and cooling the mixture to form a composition wherein the hydrated salt particles are fused to each other, with the proviso that said at least one filler material is a mixture of organic and inorganic materials.

In line 1 of claims 17, 21, and 22, delete the number "16" and insert therefor the number -13--.

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In line 2 of claims 20, 23 and 25, delete the number "16" and insert therefor the number -13--.

Claims 1-12 and 16 have been canceled.

2. The following is an examiner's statement of reasons for allowance: By the above examiner's amendment the subject matter claim 16 was incorporated into independent claim 13. Claim 13 was amended to require that the filler material is mixed with the liquefied hydrated salt component, since this is clearly required for enablement for the invention, see the specification and the examples.

Claim 16 was incorporated into independent claim 13 to overcome the teachings of Phillips U.S. Patent Number 4,288,338. Phillips teaches a mixture for the storage of heat energy utilizing the heat of fusion of the mixture, said mixture includes a salt-hydrate, a nucleating agent and a porous solid, see the abstract. In column 5, lines 9-20, Phillips discloses a method of forming his heat of fusion storage mixture by combining a salt hydrate, a nucleating agent and water. The mixture is then heat cycled to melt the salt hydrate, and the mixture is filled into a container. A porous solid, which is preferably calcium sulfate hemihydrate (corresponds to applicant's inorganic filler material) is then added in dry form. The resulting mixture is then agitated until a substantially solid appearing mass is formed. The mass is then cooled and charged into a reservoir for use as a heat of fusion storage system.

Applicant's independent claim 13 as amended above, is deemed to be patentable distinct over the Phillips method of making a heat of fusion storage system since applicant's claimed method requires the addition of an organic filler material along with an inorganic filler material to the melted salt hydrate. There is just no teaching or suggestion from Phillip's disclosure for one having ordinary skill in the art to be motivated to add an organic filler material along with the inorganic porous solid to the melted salt hydrate mixture.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Examiner Information

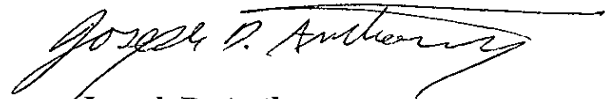
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (703) 308-0446 until 12/04/03; after 12/04/03 my new telephone number will be (571) 272-1117. This examiner can normally be reached on Monday through Thursday from 7:35 a.m. to 6:00 p.m. in the eastern time zone. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The centralized FAX machine number is (703) 872-9306. All other papers received by FAX will be treated as Official communications and cannot be immediately

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handled by the Examiner. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0651. The receptionist is located on the 8th floor of Crystal Plaza 3 (e.g. CP-3) and will be the welcome point for all visitors to the building.



Joseph D. Anthony
Primary Patent Examiner
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11/25/03